

IN THE SPECIFICATION:

Pursuant to 37 C.F.R. §1.121, please amend the specification as follows:

Replace the paragraph at page 1, lines 15-16, with the following paragraph:

91 This application is a continuation-in-part of application Serial No. 09/303,980, filed May 3, 1999, now abandoned, which is hereby incorporated by reference in its entirety.

Replace the paragraph at page 1, lines 19-26, with the following paragraph:

92 The present invention relates to a vacuum deaeration device in which a transmission film for allowing only gas to pass therethrough and preventing liquid from being transmitted is mounted within a vacuum container, a pressure within the vacuum container is reduced by a vacuum pump or the like to deaerate resolved gas from liquid (deaerated liquid) contacted with the aforesaid transmission film. More particularly the invention is a vacuum deaeration device suitable for removing resolved gas from liquid (deaerated liquid) in various kinds of production process facilities, such as a liquid chromatograph as well as various kinds of physical and chemical and analytical devices, pharmaceutical engineering, semi-conductors and liquid crystals.

Replace the paragraphs at page 2, lines 4-15, with the following paragraphs:

93 The transmission film used in this type of deaeration device is usually manufactured by a method wherein residual gasoline substances (e.g., naphtha or white oil) are added to and mixed with a powder fluorine plastic substrate to form paste. The paste material is extruded and baked under a relatively high temperature (approximately 100°C to approximately 400°C).

93
cont

At this time, liquid of a relatively low boiling point such as the aforesaid gasoline residuals is evaporated during the baking operation and removed. However, actually, liquid of relatively low boiling point, in particular, aromatic substances and olefin substances are not completely evaporated and a relatively small amount of the substances remain in the transmission film. These remaining substances in the transmission film are freely separated when liquid (deaerated liquid) is contacted with the transmission film, resolved into deaerated liquid, and bad influence (a measurement error) is applied to the measurement result performed by the liquid chromatograph device or quality keeping controls in various kinds of production processes.

Replace the paragraph at page 3, lines 18-24, with the following paragraph:

94

In the case of the exemplary preferred embodiment shown in Figure 1, the vacuum deaeration device is construed so that the transmission film 2 is formed into a tube with a predetermined length. One or a plurality of films are mounted within the vacuum container and at the same time a liquid inlet 21 and a liquid outlet 22 of the tube-shaped transmission film 2 is placed outside the vacuum container 1. The deaerated liquid flows from the liquid inlet 21 of the tube-shaped transmission film 2 while a pressure of the inside part of the vacuum container 1 is reduced using a vacuum pump 3. Resolved liquid is deaerated from the deaerated liquid while the liquid is discharged out of the outlet 22.

Replace the paragraph at page 4, lines 12-17, with the following paragraph:

98 The dispersion liquid added to and mixed with particle plastic substrate is a single solution of relatively high volatility that does not comprise aromatic substances and olefin substances, such as linear chain-like paraffin substances that do not comprise non-saturated hydrocarbon. In one embodiment of the present invention, the dispersion liquid is composed of at least two substrates selected from the group of n-hexane, n-heptane, and n-octane, not containing any aromatic and olefin substances.

Replace the paragraph at page 5, lines 13-23, with the following paragraph:

96 In accordance with the vacuum deaeration device of the present invention, a dispersion liquid of relatively high volatility comprising a single solution not containing both aromatic substances and olefin substances is added to a particle plastic substrate to form a paste material. The paste material is extruded, baked and used as a transmission film for allowing only gas to pass while preventing liquid from being transmitted. Therefore, the aromatic substances and olefin substances are not originally present at the transmission film contacted with the deaerated liquid, thereby eliminating the possibility that both aromatic substances and olefin substances are freely separated and resolved into the deaerated liquid when the deaerated liquid is contacted with this transmission film. As a result, no possibility exists that a bad influence (a measurement error or the like) will be applied to a measurement result performed by the liquid chromatograph device or quality keeping control at various kinds of production processes.